

THE JAMESTOWN PROJECT



JAMESTOWN, VIRGINIA



National Park Service
Colonial National Historical Park, Jamestown Unit

Association for the Preservation of Virginia Antiquities
Jamestown National Historic Site

Volume 2
Chapters 4-5, References

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Acronyms

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A Acronyms

AAS – atomic absorption spectrometry	CWP – Center for Watershed Protection
ACHP – Advisory Council on Historic Preservation	cy – cubic yards
ACM – asbestos-containing material	dB – decibels
ADA – Americans with Disabilities Act	dBA – A-weighted sound levels in decibels
AHERA – Asbestos Hazard Emergency Response Act	DBH – diameter at breast height
ANCS+ – Automated National Catalog System	DCP/EIS – Development Concept Plan/ Environmental Impact Statement
AOC – areas of concern	DOA – Department of the Army
APVA – Association for the Preservation of Virginia Antiquities	EDR – Environmental Data Resources, Inc.
AQRVs – air quality related values	EIR – Environmental Impact Report
ASMIS – Archaeological Sites Management Information System	EIS – Environmental Impact Statement
AST – aboveground storage tank	EPA – Environmental Protection Agency
ATS – alternative transportation system	EPW – Evaluation for Planned Wetlands Functional Capacity Index
BMP – best management practice	ERNS – emergency response notification system
CAAA – Clean Air Act Amendments of 1990	FEMA – Federal Emergency Management Agency
CAOC – critical areas of concern	FIS – flood insurance study
CBLAD – Chesapeake Bay Local Assistance Department	FHWA – Federal Highway Administration
CBPA – Chesapeake Bay Preservation Area	FTE – full-time equivalency
CCC – Civilian Conservation Corps	FWS – U.S. Fish and Wildlife Service
CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act	FY – fiscal year
CERCLIS – Comprehensive Environmental Response, Compensation, and Liability Information System	GIS – geographic information system
CLR – Cultural Landscape Report	GMP – general management plan
Colonial NHP – Colonial National Historical Park	gpm – gallons per minute
CO – carbon monoxide	GPRA – Government Performance and Results Act
COE – U.S. Army Corps of Engineers	GPS – global positioning system
CORRACTS – Corrective Action Report	HSR – Historic Structures Report
CRBIB – Cultural Resources Management Bibliography	ITC – Industrial Training Company
CRMG – Cultural Resource Management Guidelines	JAA – Jamestown Archeological Assessment
CWF – Colonial Williamsburg Foundation	JCC – James City County
	JCSA – James City Service Authority

LAOC – lesser areas of concern
LBP – lead-based paint
LCS – List of Classified Structures
LOS – level of service
LRIP – Long Range Interpretive Plan
LTANKS – leaking petroleum storage tanks
LUST – leaking underground storage tank

MLW – mean low water
MLLW – mean lower low water

NAACP – National Association for the
Advancement of Colored People
NAAQS – National Ambient Air Quality Standards
NAC – noise abatement criteria
NAGPRA – Native American Graves Protection and
Repatriation Act
NEPA – National Environmental Policy Act
NESHAP – National Emission Standards for
Hazardous Air Pollutants
NHPA – National Historic Preservation Act
NOAA – National Oceanic and Atmospheric
Administration
NO_x – nitrous oxide
NPL – National Priority List
NPS – National Park Service
NRCS – Natural Resources Conservation Service
NWI – National Wetlands Inventory

OHM – oil or other hazardous material
OSHA – Occupational Safety and Health Act; also,
Occupational Safety and Health
Administration

PCBs – polychlorinated biphenyls
PLM/DS – polarized light microscopy with
dispersion staining
PMIS – project management information system
ppm – parts per million
ppt – parts per thousand
psi – pounds per square inch
PWS – public water supply

RCRA – Resource Conservation and Recovery Act

RCRIS – Resource Conservation and Recovery
Information System
RMA – resource management area
RMP – resource management plan
ROD – Record of Decision
RPA – resource protection area
RVs – recreational vehicles

SAV – submerged aquatic vegetation
SHPO – State Historic Preservation Officer
SHWS – state list of hazardous waste sites
SIP – State Implementation Plan
SOF – Statement of Findings
SVOCs – semivolatile organic compounds
SWCB – state water control board
SWF – solid waste management facility

TCLP – toxicity characterizing leachate procedure
TKN – total Kjeldahl nitrogen
TSD – treatment, storage, and disposal facility
TSS – total suspended solids

USDA – U.S. Department of Agriculture
USDOT – U.S. Department of Transportation
USGS – U.S. Geological Survey
UST – underground storage tank

VDCR – Virginia Department of Conservation and
Recreation
VDEQ – Virginia Department of Environmental
Quality
VDGIF – Virginia Department of Game and Inland Fisheries
VDHR – Virginia Department of Historic Resources
VDMME – Virginia Department of Mines, Minerals,
and Energy
VDMR – Virginia Division of Mineral Resources
VDNH – Virginia Division of Natural Heritage
VDOT – Virginia Department of Transportation
VDPOR – Virginia Department of Occupation and Regulation
VHB – Vanasse Hangen Brustlin, Inc.
VIMS – Virginia Institute of Marine Science
VOCs – volatile organic compounds
VTC – Virginia Tourism Corporation

XRF – X-ray fluorescence

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Glossary

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A tax-exempt corporation, fund, or foundation organized and operated exclusively for religious, charitable, scientific, testing for public safety, literary, or educational purposes, no part of the net earnings of which inures to the benefit of any private shareholder or individual [26 USC 501(c)(3)].

Affected environment

The existing biological, physical, cultural, social, and economic conditions that are subject to direct and indirect changes which result from actions described in alternatives under consideration.

Alluvial/tidal prism deposits

Clay, silt, sand, gravel, or similar detrital material deposited by running water.

Alternative

A possible course of action, one of several ways to achieve an objective or vision. The term is used in this document to describe different management options.

Anadromous

Aquatic species that live in the sea and migrate to freshwater to spawn.

Ancient Planters

The men who arrived in Virginia before 1616, remained for three years, paid their passage, and survived the massacre of 1622. They received the first patents of land in Virginia as authorized by Sir Thomas Dale in 1618.

Atomic absorption spectrometry

A method that uses the absorption of radiant energy by neutral atoms in the gaseous state to identify elemental components of a solution.

Available water capacity

The amount of water a soil can store that is available for plants to use.

Borrow pit

An excavated area where material has been removed for use as fill at another location.

Carrying capacity

The measure used by the National Park Service to ensure that visitors do not harm the integrity of cultural and natural resources and that inappropriate uses do not diminish the quality of the visitor experience.

Catadromous

Aquatic species that live in freshwater and go to or toward the sea to spawn.

Cenozoic era (65 million years ago to present)

The most recent of three major divisions of plant and animal history. It is divided into two main periods: the Tertiary (65 million years ago to 1.8 million years ago) and the Quaternary (1.8 million years ago to present).

Charette

Short, intensive design or planning workshop.

Chlordane

A chlorinated, highly poisonous, volatile oil used as an insecticide.

Clovis points

Leaf-shaped flint projectile points having fluted sides. These objects were part of a widely distributed prehistoric culture of North America.

Cretaceous era (146 million years ago to 65 million years ago)

The last period of the Mesozoic era (245 million years ago to 65 million years ago); noted for being the end of the “Age of Dinosaurs” and the beginning of life as it now exists on Earth.

Cullet

Broken or waste glass that is recycled for glassmaking. Its addition to the raw materials in a glass batch facilitates melting.

Cultural landscape

A geographic area (including cultural and natural resources and wild and domestic animals) that is associated with a historic event, activity, or person, or that shows other cultural or aesthetic values.

Cultural resources

Resources that are usually greater than 50 years of age and have archaeological, architectural, ethnographic, historic, scientific, or other value. Such resources include landscapes, sites, buildings, and structures, as well as archival material, objects, or cultural practices.

Cumulative impacts

Direct and indirect effects on the environment that result from the incremental impacts of an action when added to other past, present, and reasonably foreseeable actions, regardless of who undertakes them. Cumulative impacts can result from individually minor, but collectively significant, actions occurring over time.

Direct impacts

Impacts that are caused by the alternatives at the same time and in the same place as the action (NPS 2001a).

Earthwork

An embankment or other construction made of earth, especially one used as a field fortification during the Revolutionary or Civil Wars.

Endangered species

Any species in danger of extinction through all or a significant part of its range [16 USC 1532 (6)].

Environmental consequences

The scientific and analytic basis for comparing alternatives in an environmental impact statement, based on their environmental effects, including any unavoidable adverse effects. Environmental consequences include short-term, long-term, and cumulative impacts to ecological, aesthetic, historical, cultural, economic, and social environments.

Environmental impact statement (EIS)

A detailed public statement that must be made when a federal agency proposes a major action that has the potential to significantly affect the quality of the human environment. EISs are required by the National Environmental Policy Act (NEPA).

Environmentally preferred alternative

The alternative that best satisfies Section 101 of the National Environmental Policy Act (NEPA) and that best fulfills “the responsibilities of each generation as trustees of the environment” [42 USC 4331].

Erosion hazard

A measure of the susceptibility of an area of land to prevailing agents of erosion determined by climate, topography, soil erodibility, and land use.

Estuary

A tidally influenced, semi-enclosed body of water in which seawater mixes with fresh river water, typically having an ocean-derived salt concentration greater than 0.5 parts per thousand.

Exotic species

Species of plants or animals that do not naturally occur in an area and whose introduction does or is likely to cause economic or environmental harm or harm to human health. Also known as introduced species, nonnative species, or invasive species.

Experimental archaeology

Using on-going archaeological excavations and research to provide an educational interpretive experience. Evidence found from archaeological, historical, and scientific research and analysis is used to build a picture of history.

Fetch

The distance over water that wind can blow and generate waves.

Floodplain

A plain along a river formed from sediment left by flooding.

Flood zone

Land next to a body of water that is subject to periodic inundation.

100-year, 500-year flood zones

Areas where the probability of being inundated is once in 100 years or 500 years.

Forested wetland

Wetland area dominated by woody vegetation taller than 6 meters (20 feet).

Fragmentation (habitat)

The partitioning of habitats into smaller and more isolated parcels, usually as a result of changes in land cover.

Freshwater

Water with a salt concentration less than 0.05 parts per thousand.

Friable

Easily crumbled or pulverized.

Headright system

The most common colonial method of obtaining land during the 17th and early 18th centuries. Each person who paid the transportation costs of an immigrant received 50 acres.

Herbaceous wetland

A nontidal or tidal wetland dominated by nonwoody vegetation such as grasses, sedges, and rushes.

Historic character

The sum of all visual aspects, features, materials, and spaces associated with the history of a historic site, structure, or landscape.

Indirect impacts

Impacts caused by the alternatives that occur later in time or farther in distance than the action (NPS 2001a).

Interpretation

Activities or media designed to help people understand, appreciate, enjoy, and care for the natural and cultural environment.

Infrastructure

The systems and facilities needed to support park operations and visitor services (e.g., sewer and water systems, stormwater management, electric systems, communication lines, roads and trails, and support buildings and structures).

Level of Service

A qualitative traffic engineering term to define the quality of traffic flow on transportation facilities. The Levels of Service range from Level of Service A (representing low delay conditions) to Level of Service F (representing breakdown conditions).

Lithic artifact

A stone tool.

Mission 66

The familiar “visitor center” building type used by the National Park Service. The style was developed in the mid-1950s to incorporate visitor facilities, interpretive programs, and administrative offices in one structure and to recognize the new commitment of the Park Service to interpret park resources and accommodate visitors and personnel.

Mitigation

An activity designed to avoid, minimize, reduce, rectify, compensate for, or eliminate adverse impacts of a proposed action.

Modal Split (Mode Choice)

The percentage breakdown of the use of individual transportation modes in a multimodal transportation network.

National Historic Landmark

A place that has been determined by the secretary of the interior to have national significance because it is a site where important events occurred or where prominent Americans worked or lived; it represents ideas that shaped the nation; or it is an outstanding example of design or construction.

National Register of Historic Places

A comprehensive list of districts, sites, buildings, and structures of national, regional, state, and local significance in American history, architecture, archaeology, engineering, and culture. The list is maintained by the National Park Service under the authority of the National Historic Preservation Act of 1966.

NITON X-ray fluorescence spectrum analyzer

A handheld tool used to detect lead in paint.

No Action Alternative

An alternative in an environmental impact statement that continues the current management direction. This alternative serves as a benchmark against which action alternatives are compared.

North Devon slipware

An English ceramic type produced in the potteries of North Devon, situated in the Bideford and Barnstaple areas, beginning in the early 17th century. The wares can be plain, with the slip appearing yellow under the lead glaze, or decorated with a sgraffito technique in which geometric and floral patterns are scratched through the slip to reveal the brown body underneath. The most common forms are plates, mugs, and pitchers.

Oligohaline

Water with an ocean-derived salt content of 0.05 to 5 parts per thousand.

Palisaded fort

A fort surrounded by a fence of stakes for defense.

Paludal sediments

Marsh sediments.

Palustrine

A wetland hydrologic regime that includes all nontidal and tidally influenced wetlands where the ocean-derived salt content is less than 5 parts per thousand.

Phase I archaeological survey

Involves compiling all relevant background information, along with comprehensive recordation of all sites, buildings, structures, objects, and potential districts within the survey area. This information is used in planning and making decisions about historic resource management needs.

Phase II archaeological survey

Evaluation of a resource's significance as determined by defined historic context and criteria of the Virginia Landmarks Register and the National Register of Historic Places. The purpose of a site evaluation is to determine whether the site is eligible for the National Register and to provide recommendations for the future treatment of the site.

Phase III archaeological survey

Once the significance of a historic property has been established, the appropriate treatment for the resource is implemented. Treatment can include a variety of measures such as avoidance, recordation, data recovery, development of a historic preservation plan, rehabilitation, or restoration.

Pliocene era (5.3 million years ago to 1.8 million years ago)

A geologic age of global cooling and drying that may have contributed to the spread of grasslands and savannas and the rise of long-legged grazers. The Panamanian land-bridge between North and South America appeared, allowing migrations of plants and animals into new habitats, and ice accumulated at the poles.

Pleistocene era (1.8 million years ago to 11,000 years ago)

A geologic age of great climate shifts, including the last ice age, and the evolution of humans.

Polarized light microscopy with dispersion staining

A method of identifying the type and quantity of asbestos in a sample.

Polychlorinated biphenyl (PCB)

Any of several compounds that are produced by replacing hydrogen atoms in biphenyl with chlorine, have various industrial applications, and are poisonous environmental pollutants that tend to accumulate in tissues of animals, including humans.

Preferred alternative

The alternative that a National Park Service decision maker has identified as the favored approach at the draft plan stage.

Provenience

Source or origin.

Quaternary era (1.8 million years ago to present)

The most recent geologic time period. It is divided into the Pleistocene (1.8 million to 11,000 years ago) and Holocene (11,000 years ago to present) periods.

Record of decision (ROD)

The public document that follows the preparation of an environmental impact statement. It reflects the preparing agency's final decision and the rationale behind that decision.

Recreational resources

Elements of the environment that humans use for outdoor recreation, including natural and man-made features such as streams, parks, and trails.

Redoubt

A small, usually temporary, enclosed defensive work.

Resource management area (RMA)

Land types defined under Virginia's Chesapeake Bay Preservation Act that, if improperly used or developed, could significantly harm water quality or diminish the functional value of the resource protection area (RPA). These land types include floodplains, highly erodible or highly permeable soils, steep slopes, nontidal wetlands not included in the RPA, and other areas deemed necessary for protecting a state's water quality.

Resource protection area (RPA)

Sensitive lands defined under Virginia's Chesapeake Bay Preservation Act that are at or near the shoreline and have intrinsic water quality value because of the ecological and biological processes they perform or that are sensitive to impacts that may significantly harm state waters. These lands include tidal wetlands, nontidal wetlands connected by surface flow and continuous flow to tidal wetlands or tributary streams, and tidal shores, as well as a 100-foot buffer area.

Revetment

A shoreline armoring system that protects the base of eroding upland banks. These structures are usually across a graded slope, and their dimensions depend on wave climate and bank condition.

Scoping

Early consultations with interested and affected members of the public, as well as with staff and other federal, state, and local agencies having regulatory or planning responsibilities to identify issues to be considered in a plan.

Semi-anadromous

Aquatic species that live in estuarine waters but return to freshwater to spawn.

Scrub/shrub wetland

A wetland area dominated by woody vegetation less than 6 meters (20 feet) tall.

Shrink-swell potential

A property of the clay fraction in soils in which clays swell when they absorb water and shrink when they dry. This property is noticeable in the subsoil where the most finely textured layers of the soil profile are found. Swelling pressure of clays may damage foundations and retaining walls where soil drainage and permeability are limited.

Sill

A free-standing structure designed to reduce erosion. It limits wave action by preventing waves from reaching the upland region. A sill is installed with beach fill to create a substrate, or foundation, for establishing a marsh fringe.

Tertiary era (65 million years ago to 1.8 million years ago)

A geologic time period containing the following divisions: Paleocene (65 to 54 million years ago), Eocene (54 million to 38 million years ago), Oligocene (38 million to 23 million years ago), Miocene (23 million to 5 million years ago), and Pliocene (5 million to 1.8 million years ago).

Threatened and endangered species

Plants and animals that are listed by the U.S. Fish and Wildlife Service or state government as being offered protection under the Endangered Species Act or state law.

Threatened species

Any species that is likely to become endangered in the foreseeable future [16 USC 1532 (20)].

Toxicity characteristic leachate procedure (TCLP)

A procedure to determine the mobility of the inorganic contaminants present in liquid, solid, and multiphase wastes to determine which hazardous contaminants are actually entering the environment.

Tram

A form of public transit, consisting of “a tractor unit, with or without passenger accommodations, and one or more passenger trailer units, including, but not limited to, providing shuttle service to remote parking areas, between hotels and other public accommodations, and between and within amusement parks and other recreation areas.”

Viewshed

The area visible from a location, including near and distant views.

Visitor experience

The perceptions, feelings, and interactions that visitors have with a park’s environment and programs. The experience is affected by the setting, the types and levels of activities permitted, and the interpretive techniques used to convey park themes.

Water taxi

A ferry boat service that is operated continuously to provide frequent, convenient service compared to other transportation modes.

Wave climate

The overall wave energy that impacts the project shoreline, averaged through time. Wave climate is influenced by fetch and nearshore bathymetry.

Wetland

Areas saturated or inundated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil. Wetlands generally include swamps, marshes, bogs, and similar areas [33 CFR 328.3(b)].

X-ray fluorescence screening (XRF)

A technique for analyzing lead in paint.

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